

**REMARKS**

Claims 34-63 were presented for examination and claims 34-63 stand rejected. In the current amendment, claims 48 and 49 has been amended and claim 64 has been added. Support for the amended claim 48 can be found in FIGs. 2, 3B and 7 and in paragraphs [0009], [0014]-[0015], [0034], [0038]-[0040] and [0069]-[0076] and throughout the remainder of the specification. No new matter has been introduced. Upon entry of the current amendment, claims 34-64 will be pending, of which claims 34, 49 and 64 are independent. Applicants submit that claims 34-64 are in condition for allowance.

The following comments address all stated grounds of rejection. Applicants respectfully traverse all rejections and urge the Examiner to pass the claims to allowance in view of the remarks set forth below.

**CLAIM REJECTIONS UNDER 35 U.S.C. §101**

Claims 49-63 are rejected under 35 U.S.C. §101 as directed towards non-statutory subject matter. Amended claim 49 is independent. Claims 50-63 depend on and incorporate all the patentable subject matter of independent claim 49, as amended. Applicants traverse this rejection. Applicants submit that claims 49-63 as amended are directed to patent eligible subject matter.

Under the “machine-or-transformation” test of In Re Bilski (“Bilski”), claimed subject matter is patentable under 35 U.S.C. §101 if “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” Amended claim 49 recites a device configured as an interface unit for transmitting client requests to a server. The claim limitation of a “device configured as an interface unit” ties the claimed subject matter to a particular machine. Thus, this claim meets the machine portion of the Bilski test and is patentable under 35 U.S.C. §101.

Because claim 49 is directed to a particular machine, Applicants submit that claim 49 is patentable under 35 U.S.C. §101. Claims 50-63 depend on and incorporate all of the patent eligible subject matter of claim 19. Thus, Applicants submit that claims 50-63 are also patentable under 35 U.S.C. §101. Accordingly, Applicants requests the Examiner to withdraw the rejection of claims 49-63 under 35 U.S.C. §101.

**CLAIM REJECTIONS UNDER 35 U.S.C. §103****I. Claims Rejected Under 35 U.S.C. §103**

Claims 34-63 are rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,360,270 to Cherkasova et al. (“Cherkasova”) in view of U.S. Patent No. 7,024,477 to Allan (“Allan”), and further in view of U.S. Patent No. 7,000,012 to Moore et al. (“Moore”). Claims 34 and 49 are independent claims. Claims 35-48 depend on and incorporate all the patentable subject matter of independent claim 34. Claims 50-63 depend on and incorporate all the patentable subject matter of independent claim 49. Applicants traverse this rejection and submit that the combination of Cherkasova, Allan and Moore fails to teach or suggest each and every element of claims 34-63.

**A. Independent Claims 34 and 49 Patentable over Cherkasova, Allan and Moore**

To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Independent claims 34 and 49 are directed towards a method and system for managing throughput of a server while avoiding overload of the server. These independent claims recite:

- (i) determining the performance of the server throughput from monitoring of changes in response times from the server; and
- (ii) determining the performance of the server throughput from monitoring changes of a rate in which the response times from the server change.

Applicants submit that any combination of Cherkasova, Allan and Moore fails to teach or suggest each and every element of the claimed invention.

The combination of Cherkasova, Allan and Moore fails to teach or suggest determining performance of the server throughput from monitoring of changes in response times from the server. The Examiner admits that Cherkasova does not teach this claim element and combines Moore’s latency sensing and Allan’s monitoring of web servers for this purpose. The Examiner equates Moore’s *“change in the latency experienced by packets traversing the network”* to a change in response times from the server. Applicants respectfully disagree. As Moore clearly defines latency as *“latency experienced by packets traversing the network”*, Moore’s latency measures network throughput as delays in transmission between two points in a network. As latency

measures only network transmission times, Moore does not provide a measurement of performance of the server throughput. Moore's latency does not identify the time taken by a server to respond to a client request which changes based on server load. Thus, Moore's latency cannot be used to monitor changes in response times from the server in order to determine the performance of the server throughput. Therefore, combining with Allan's monitoring of web servers with Moore's latency and Cherkasova does not teach or suggest monitoring changes in response times from the server nor does it teach or suggest determining performance of the server throughput from the monitoring of changes in response times from the server.

Similarly, the combination of Cherkasova, Allan and Moore fails to teach or suggest determining performance of the server throughput from the monitoring of changes of a rate in which the response times from the server change. The Examiner further equates Moore's jitter measurement to changes of rate in response time changes. Moore's jitters merely identifies a "*change in the variation of the latency...*" as "*...experienced by packets traversing the network.*" (See, Moore col. 7, lines 5-6). The changes in network performance measured via jitter does not provide a measure of the rate of change to changes in response times from the server. Therefore, performance of the server throughput cannot be determined by monitoring of Moore's jitter measurements of network throughput. For at least these reasons, any combination of Cherkasova, Allan and Moore fails to teach or suggest monitoring changes of a rate in which the response times from the server change and determining performance of the server throughput from the monitoring of changes of a rate in which the response times from the server change.

Because the combination of Cherkasova, Allan and Moore fails to disclose, teach or suggest each and every element of the claimed invention, Applicants submit that independent claims 34 and 49 are patentable and in condition for allowance. Claims 35-39 and 45-48 depend on and incorporate all the patentable subject matter of independent claim 34. Claims 50-54 and 60-63 depend on and incorporate all the patentable subject matter of independent claim 49. Therefore, Applicants submit that claims 35-39, 45-48, 50-54 and 60-63 are also patentable and in condition for allowance. Thus, Applicants request the Examiner to withdraw the rejection of claims 34-63 under 35 U.S.C. §103.

B. Claims 40-44 and 55-59 Patentable over Cherkasova, Allan, Moore, Phaal and Shabtay

Claims 40-41, 55-56 are rejected by the Examiner as unpatentable over Cherkasova in view of Allan in further view of U.S. Patent No. 6,055,564 to Phaal (“Phaal”). Claims 40-41, depend on and incorporate all the patentable subject matter of independent claim 34. Claims 55-56 depend on and incorporate all the patentable subject matter of independent claim 49. For the reasons discussed above, Applicants submit independent claim 49 is patentable and in condition for allowance. Phaal does not detract from the patentability of independent claim 49. As with Cherkasova and Allan, Phaal also fails to disclose, teach or suggest monitoring changes in response times from the server and changes of a rate in which the response times from the server change. Instead, Phaal is concerned with determining the position of the client request in the queue based on the preferred client value (See Phaal, col. 8, line 66 to col. 9, line 50). Since Phaal in combination with Cherkasova and Allan fails to teach or suggest each and every element of the claimed invention, Applicants submit that claims 40-41 and 55-56 are patentable and in condition for allowance. Thus, Applicants request the Examiner to withdraw the rejection of claims 40-41 and 55-56 under 35 U.S.C. §103.

Claims 42-44 and 57-59 are rejected under 35 U.S.C. §103 as unpatentable over Cherkasova in view of Allan in further view of U.S. Published Application No. US 2002/0120743 to Shabtay et al. (“Shabtay”). Claims 42-44 depend on and incorporate all the patentable subject matter of independent claim 34. Claims 57-59 depend on and incorporate all the patentable subject matter of independent claim 49. For the reasons discussed above, Applicants submit independent claim 49 is patentable and in condition for allowance. Shabtay does not detract from the patentability of independent claim 49. As with Cherkasova and Allan, Shabtay fails to disclose, teach or suggest monitoring changes in response times from the server and changes of a rate in which the response times from the server change. Since Shabtay combined with Cherkasova and Allan fails to teach or suggest each and every element of the claimed invention, Applicants submit that claims 42-44 and 57-59 are patentable and in condition for allowance. Thus,

Applicants request the Examiner to withdraw the rejection of claims 42-44 and 57-59 under 35 U.S.C. §103.

### **PATENTABILITY OF NEW CLAIM**

New independent claim 64 is directed to a method for managing throughput while avoiding overload of one or more servers in an environment including an interface unit intercepting requests from clients to a server, transmitting the intercepted requests to the server, and intercepting responses to the requests transmitted by the server to the clients. This claim recites transmitting, by a device configured as an interface unit, client requests to a server to maintain performance of server throughput within a predetermined threshold of a server throughput function, the predetermined threshold corresponding to value of the server throughput function that is based on a number of client requests to the server via the interface unit per second of time over a total number of clients communicating with the server via the interface unit. This claim further recites monitoring, by the interface unit, changes in times between the interface unit forwarding intercepted client requests to the server and the interface unit receiving the responses to the forwarded intercepted client requests from the server and changes of a rate in which differences between the changes in times change. This claim also recites transmitting, by the interface unit, the buffered request to the server upon the interface unit determining that the performance of server throughput is within the predetermined threshold of the server throughput function and that a total number of clients currently communicating with the server per second of time is less than a predetermined number of clients per the per second of time.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. To establish a prima facie case of obviousness, all the claim limitations must be taught or suggested by the prior art. Applicants submit that no combination of Cherkasova, Allan, Moore, Phaal and Shabtay teaches or suggests transmitting, by the interface unit, the buffered request to the server upon the interface unit determining that the performance of server throughput is within the predetermined threshold of the server throughput function

and that a total number of clients currently communicating with the server per second of time is less than a predetermined number of clients per the per second of time.

Applicants submit that Cherkasova, Allan, Moore, Phaal and Shabtay, alone or in combination, fail to disclose, teach or suggest each and every element of the claimed invention. Because Cherkasova, Allan, Moore, Phaal and Shabtay fail to disclose, teach or suggest each and every feature of independent claim 64, Applicants submit claim 64 is patentable and is in condition for allowance.

### **CONCLUSION**

In light of the aforementioned amendments and arguments, Applicants contend that each of the Examiner's rejections has been adequately addressed and all of the pending claims are in condition for allowance. Accordingly, Applicants respectfully request reconsideration, withdrawal of all grounds of rejection, and allowance of all of the pending claims.

Should the Examiner feel that a telephone conference with Applicants' attorney would expedite prosecution of this application, the Examiner is urged to contact the Applicants' attorney at the telephone number identified below.

Respectfully submitted,  
CHOATE, HALL & STEWART, LLP

Dated: February 24, 2009

**/Christopher J McKenna/**  
Christopher J. McKenna  
Registration No. 53,302  
Attorney for Applicants

Choate, Hall & Stewart, LLP  
Two International Place  
Boston, MA 02110  
(617) 248-5000